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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/768,169	02/02/2004	Alessandro Trequattrini	1008788-000057	5775

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EXAMINER

LUONG, PETER

ART UNIT	PAPER NUMBER
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3737

NOTIFICATION DATE	DELIVERY MODE
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10/06/2009

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ADIPFDD@bipc.com

Office Action Summary	Application No. 10/768,169	Applicant(s) TREQUATTRINI ET AL.	
	Examiner Peter Luong	Art Unit 3737	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 March 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-151 is/are pending in the application.
- 4a) Of the above claim(s) 55-60,83-88 and 119-138 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-54,61-82,89-118 and 139-151 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of Species I in the reply filed on 3/5/2009 is acknowledged. The traversal is on the ground(s) that the search required for the non-elected species would be substantially coextensive with the search associated with the elected species. The Examiner has withdrawn the election of species.
2. Claims 55-60, 83-88, and 119-138 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected inventions, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 3/5/2009.

The requirement is still deemed proper and is therefore made FINAL.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
4. Claims 1-54, 61-82, 89-104, and 139-151 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
5. The scope of claim 4 is unclear, as the claim recites wherein the magnetic structure is rotatable and is not rotatable.
6. In claim 8, it is unclear whether "a magnetic structure" is the same as "a magnetic structure" set forth in claim 1.

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7. In claim 9, it is unclear whether “a lock” is the same as “a lock” set forth in claim 1.

8. In claim 18, it is unclear whether “removable locking means” is the same as the lock as set forth in claim 1.

9. In claims 42-43, 67, 73-74, 76-77, and 89, 94, 101, 103 the recitation of “and or”, “and/o”, or “an/or” renders the scope of the claim unclear.

10. In claim 1 “the magnet”, “the axis”, and “the entire magnetic structure” each lack antecedent basis, in claims 2-10, 14-22, 27-20, 41, 44, 49 “the table supporting frame” lacks antecedent basis, in claim 2 “the aid magnetic structure” lacks antecedent basis, in claims 3, 7, and 17-18 “the entire magnetic structure” lacks antecedent basis, in claim 7 “the central axis” lacks antecedent basis, in claim 8 “the rotational axis”, “the central branch”, “the U-shaped magnetic structure”, “the two opposite lateral branches”, “the U-shaped yoke support”, and “the common axis of rotation” each lack antecedent basis, in claim 9 “the central longitudinal axis” and “the magnet” each lack antecedent basis, in claim 10 “the central branch”, “the U-shaped magnetic yoke”, “the longitudinal direction”, “the angled end branches”, “the half width”, “the free ends”, “the end branches”, in claim 11 “the rear side”, “the length”, “the ends”, and “the first table supporting frame” each lack antecedent basis, in claims 14 and 19 “the table plate” lacks antecedent basis, in claims 15-16 “the patient” lacks antecedent basis, in claim 17 “the means” lack antecedent basis, in claim 18 “the horizontal position” and “the vertical position” each lack antecedent basis, in claim 20 “the footrest”, “the seat plate”, and “the seat” each lack antecedent basis, in claim 21 “the footrest” and “the seat plate” each lack

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antecedent basis, in claim 22 “the machine frame” and “the patient” each lack antecedent basis, in claims 23-25 “the patient” lacks antecedent basis, in claim 24 “the armpits” lack antecedent basis, in claim 25 “the knees” and “the legs” each lack antecedent basis, in claim 27 “the patient retaining means”, “the longitudinal direction”, and “the transversal direction” each lack antecedent basis, in claims 28-29 “the machine frame” and “the patient retaining means” each lack antecedent basis, in claims 30 and 52 “the knee retaining means”, “the arm rests”, and “the armpit supporting means” each lack antecedent basis, in claim 31 “the patient securing belts” lacks antecedent basis, in claim 32 “the patient retaining means”, the footrest”, “the seat”, “the swingable parts”, “the table plate” each lack antecedent basis, in claim 33 “the magnet” and “the table supporting frame” each lack antecedent basis, in claim 35 “the plate” lacks antecedent basis, in claim 36 “the seat plate”, “the table plate”, and “the swingable seat plate” each lack antecedent basis, in claim 37 “the table plate”, “the table supporting frame”, and “the plate” each lack antecedent basis, in claim 38-39 “the table supporting frame” and “the patient” each lack antecedent basis, in claim 40 “the table supporting frame” and “the substantially horizontal position” each lack antecedent basis, in claim 42 “the footrest”, “the seat plate”, “the table supporting frame”, and “the seat” each lack antecedent basis, in claim 43 “the footrest”, “the seat plate”, and “the table supporting frame”, in claim 44 “the machine frame” and “the patient” each lack antecedent basis, in claims 45-48 “the patient” lacks antecedent basis, in claim 46 “the armpits” lack antecedent basis, in claim 47 “the knees” and “the leg” each lack antecedent basis, in claim 48 “the form of handles” and “the arms” each lack antecedent basis, in claim 49

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“the longitudinal direction” and “the transverse direction” each lack antecedent basis, in claims 50-51 “the table supporting frame” and “the machine frame” each lack antecedent basis, in claim 53 “the patient securing belts” lack antecedent basis, in claim 54 “the patient retaining means”, “the footrest”, “the seat”, and “the swingable parts” each lack antecedent basis, in claim 61-62 “the horizontal position”, “the vertical position”, “the substantially vertical position”, and “the magnetic poles” lack antecedent basis, in claim 63 “the images”, in claim 66 “the selected position” lacks antecedent basis, in claims 78-79 “the images” lacks antecedent basis, in claims 139 and 145 “the patient” lacks antecedent basis.

Claim Rejections - 35 USC § 102

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

12. Claims 1 and 4 are rejected under 35 U.S.C. 102(b) as being anticipated by Damadian et al. (US 6,414,490).

13. As best understood by the Examiner, the patent of Damadian et al. discloses a magnetic resonance imaging apparatus comprising a magnetic structure (9) having two opposite and spaced apart poles (12) and a column or wall transverse to the poles and connecting the poles (10); the poles define two opposite walls delimiting a patient-imaging space, the two opposite walls extending along substantially parallel planes which are substantially parallel to a vertical plane (Fig. 2); and a patient positioning table

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which is slidably connected to a supporting frame between the two poles (Fig. 4); the table being positioned with its longitudinal axis substantially parallel to the two opposite parallel walls of the poles and the table being oriented with its transverse axis substantially perpendicular to at least one of the two opposite walls (Fig. 3); the table being slidable with respect to the magnet in a direction parallel to a longitudinal axis of the table (Figs. 3 and 11); manual or automatic means being provided for displacing the table relative to the magnetic structure along the longitudinal axis (34); a lock for locking the table in a selected position relative to the magnetic structure (40); manual or automatic means being provided for rotating the frame about the axis (40), and wherein the magnetic structure is non-rotatable.

Claim Rejections - 35 USC § 103

14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

15. Claims 1-14, 17-19, 21, 33-37, 41-43, 61-66, 75-76, 78 are rejected under 35 U.S.C. 103(a) as being unpatentable over Damadian et al. (US 6,414,490) in view of Eckels et al. (US 6,011,396).

16. The patent of Damadian et al. discloses a magnetic resonance imaging apparatus comprising a magnetic structure (9) having two opposite and spaced apart poles (12) and a column or wall transverse to the poles and connecting the poles (10); the poles define two opposite walls delimiting a patient-imaging space, the two opposite

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walls extending along substantially parallel planes which are substantially parallel to a vertical plane (Fig. 2); and a patient positioning table which is slidably connected to a supporting frame between the two poles (Fig. 4); the table being positioned with its longitudinal axis substantially parallel to the two opposite parallel walls of the poles and the table being oriented with its transverse axis substantially perpendicular to at least one of the two opposite walls (Fig. 3); the table being slidable with respect to the magnet in a direction parallel to a longitudinal axis of the table (Figs. 3 and 11); manual or automatic means being provided for displacing the table relative to the magnetic structure along the longitudinal axis (34); a lock for locking the table in a selected position relative to the magnetic structure (40); and manual or automatic means being provided for rotating the frame about the axis (40). Damadian et al. does not teach wherein the poles or the entire magnetic structure being rotatable together from a horizontal table position to a vertical table position. However, Eckels et al. teaches in an adjustable MRI imaging system wherein the magnet assembly can be rotated around the patient (Fig. 4). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the magnet to be rotatable around the patient as taught by Eckels et al. to allow for adjustable positioning of the magnet.

17. With respect to claims 5-6, 33, Damadian et al. discloses the subject matter substantially as claimed except for the table supporting frame is supported by the magnetic structure. However, an integration of parts is well within the skill level of one of ordinary skill in the art (In re Larson, 340 F.2d 965, 968, 144 USPQ 347, 349 (CCPA

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1965)). It is well known in magnetic resonance imaging for the table supporting frame and the magnetic structure to be connected. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have combined the table supporting frame and the magnetic structure.

18. With respect to claim 7, it would have been an obvious modification to substantially align the rotational axis of the table and magnet.

19. With respect to claim 9, Damadian et al. discloses the subject matter substantially as claimed except for a drive being provided for rotating the table.

However, automating a mechanical process is well within the skill level of one of ordinary skill in the art. Eckels et al. teaches a drive for rotating the magnets. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided a drive for rotating the table as automating a mechanical process is well within the skill level of one of ordinary skill in the art (In re Venner, 262 F.2d 91, 95, 120 USPQ 193, 194 (CCPA 1958)).

20. Claims 15-16 and 38-40, 67-72, 77 are rejected under 35 U.S.C. 103(a) as being unpatentable over Damadian et al. (US 6,414,490) in view of Eckels et al. (US 6,011,396).as applied to claim 1 above, and further in view of Damadian et al. (US 6,023,165).

21. With respect to claims 10-11, Damadian et al. discloses the subject matter substantially as claimed except for rotating the table along its longitudinal axis. However, Damadian et al. ('165) teaches in an MRI apparatus which rotates the table horizontally and vertically and which rotates the table along its longitudinal axis (Fig.

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16). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided Damadian et al. ('490) with the table rotatable along its longitudinal axis as taught by Damadian et al. ('165) in order to obtain images of the patient at different positions. Damadian et al. discloses the subject matter substantially as claimed except for a U-shaped frame. However, a change in shape is well within the skill level of one of ordinary skill in the art (In re Dailey, 357 F.2d 669, 149 USPQ 47 (CCPA 1966)). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the shape of the frame as a matter of design choice.

22. Claims 15-16 and 38-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Damadian et al. (US 6,414,490) in view of Eckels et al. (US 6,011,396).as applied to claim 14 above, and further in view of Damadian et al. (US 6,934,574).

23. Damadian et al. discloses the subject matter substantially as claimed except for the angular positions of the table. However, Damadian et al. ('574) teaches a MRI scanner comprising a patient support (Fig. 3) capable of being adjusted to a number of angles and positions. Therefore, it would have been obvious to one of ordinary skill in the art to have modified the patient support structure of Damadian ('490) with the adjustable positions of Damadian ('574) in order to obtain images of the patient in multiple positions.

24. Claims 20, 22-32, 44-54, 73-76, 78-82 are rejected under 35 U.S.C. 103(a) as being unpatentable over Damadian et al. (US 6,414,490) in view of Eckels et al. (US

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6,011,396).as applied to claim 14 above, and further in view of Carter et al. (US 6,860,272).

25. Damadian et al. discloses the subject matter substantially as claimed except for a guiding means to slide the footrest or seat. However, Carter et al. teaches a means for sliding the footrest in an MRI apparatus (Fig. 3). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided the means for sliding the footrest as taught by Carter et al. in order to adjust the location of the footrest. With respect to the seat, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided the same means to allow adjustment of the seat.

26. Damadian et al. discloses the subject matter substantially as claimed except for a means for retaining the patient. However, Carter et al. teaches in an MRI apparatus means for retaining a patient including removable fastening belts (Fig. 3). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided the apparatus of Damadian with the patient retention means as taught by Carter et al. in order to keep the patient in place. With respect to the armpit support, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided an armpit support as an addition means of support for the arms as Damadian et al. teaches an arm support (48).

27. With respect to claims 32 and 54, Damadian et al. teaches the subject matter substantially as claimed except for a locking means for the patient retaining means, the footrest, and the seat. However, it would have been obvious to one of ordinary skill in

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the art at the time the invention was made to have provided those parts with a locking mechanism in order to keep the positions of those parts in place to avoid patient movement during examination.

28. Claims 1-54, 61-82 and 89-118, and 139-151 are rejected under 35 U.S.C. 103(a) as being unpatentable over Damadian et al. (US 6,023,165, US 6,414,490, and US 6,934,574), Eckels et al. (US 6,011,396), and Carter et al. (US 6,860,272).

29. The combination of Damadian et al. ('165, '490, '574), Eckels et al., and Carter et al. discloses the subject matter of the system capable of performing the various positions of the patient and locking of the patient supports (see combinations above). Therefore, the subject matter of which inherently discloses the method steps substantially as claimed.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter Luong whose telephone number is (571)270-1609. The examiner can normally be reached on Monday - Friday, 9:30 a.m. - 6:00 p.m., EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Casler can be reached on (571) 272-4956. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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